

陈学伟 四川农业大学特聘教授，研究员，博士生导师。1997年于四川农业大学获得学士学位，2000年于四川农业大学获得硕士学位，2003年于中国科学院遗传与发育生物所获得博士学位，之后在中国科学院遗传与发育生物所从事一年研究工作。2004年赴美国加利福尼亚大学从事水稻抗病分子机理研究。2011年回国就职于四川农业大学水稻研究所，现担任校学术委员会副主任、作物重大病害四川省高校重点实验室执行主任，入选国家高层次人才特殊支持计划“万人计划”科技创新领军人才，国家科技部“创新人才推进计划”中青年科技创新领军人才，教育部“新世纪优秀人才”，四川省海外引进“千人计划”特聘专家，四川省学术与技术带头人等。现主要从事水稻重大病害理论与应用研究，在 *Cell*、*PNAS*、*Autophagy*、*Molecular Plant*、*PLoS Genetics* 等主流杂志上发表论文 50 余篇，申请获得专利多项。与育种专家合作育成了杂交水稻抗病新品种 20 余个，国家审定品种 7 个，取得了显著社会经济效益。

发表的主要论文(*,通讯作者; #,第一作者)

1. Xiaogang Zhou#, Haicheng Liao#, Mawsheng Chern#, Junjie Yin#, Yufei Chen, Jianping Wang, Xiaobo Zhu, Zhixiong Chen, Can Yuan, Wen Zhao, Jing Wang, Weitao Li, Min He, Bingtian Ma, Jichun Wang, Peng Qin, Weilan Chen, Yuping Wang, Jiali Liu, Yangwen Qian, Wenming Wang, Xianjun Wu, Ping Li, Lihuang Zhu, Shigui Li, Pamela C. Ronald, and **Xuwei Chen***. Loss-of-function of a rice TPR-domain RNA-binding protein confers broad-spectrum disease resistance. *PNAS (Track II)* (In press)
2. Min He#, Youping Xu#, Jinhua Chen#, Yuan Luo#, Yang Lv, Jia Su, Michael J. Kershaw, Weitao Li, Jing Wang, Junjie Yin, Xiaobo Zhu, Xiaohong Liu, Mawsheng Chern, Bingtian Ma, Jichun Wang, Peng Qin, Weilan Chen, Yuping Wang, Wenming Wang, Zhenglong Ren, Xianjun Wu, Ping Li, Shigui Li, Youliang Peng, Fucheng Lin, Nicholas J. Talbot, **Xuwei Chen***. MoSnt2-dependent deacetylation of histone H3 mediates MoTor-dependent autophagy and plant infection by the rice blast fungus *Magnaporthe oryzae*. *Autophagy* (In Press)
3. Weitao Li#, Ziwei Zhu#, Mawsheng Chern#, Junjie Yin#, Chao Yang#, Li Ran#, Mengping Cheng, Min He, Kang Wang, Jing Wang, Xiaogang Zhou, Xiaobo Zhu, Zhixiong Chen, Jichun Wang, Wen Zhao, Bingtian Ma, Peng Qin, Weilan Chen, Yuping Wang, Jiali Liu, Wenming Wang, Xianjun Wu, Ping Li, Jirui Wang, Lihuang Zhu, Shigui Li, **Xuwei Chen***. A natural allele of a transcription factor in rice confers broad-spectrum blast resistance. *Cell*, 2017, 170:1-13.

4. Xiaobo Zhu#, Junjie Yin#, Sihui Liang, Ruihong Liang, Xiaogang Zhou, Zhixiong Chen, Wen Zhao, Jing Wang, Weitao Li, Min He, Can Yuan, Koji Miyamoto, Bingtian Ma, Jichun Wang, Peng Qin, Weilan Chen, Yuping Wang, Wenming Wang, Xianjun Wu, Hisakazu Yamane, Lihuang Zhu, Shigui Li, and **Xuwei Chen***. The multivesicular bodies (MVBs)-localized AAA ATPase LRD6-6 inhibits immunity and cell death likely through regulating MVBs-mediated vesicular trafficking in rice. *PLoS Genetics*, 2016, 12(9):e1006311.
5. Xiaogang Zhou#, Jing Wang#, Chunfang Peng, Weitao Li, Min He, Jichun Wang, Mawsheng Chern, Junjie Yin, Can Yuan, Wenguan Wu, Peng Qin, Xianjun Wu, Shigui Li, Pamela Ronald, and **Xuwei Chen***. Four receptor-like cytoplasmic kinases regulate development and immunity in rice. *Plant Cell & Environment*, 2016, 39(6):1381-92.
6. Weitao Li#, Ya Liu#, Jing Wang, Min He, Xiaogang Zhou, Chao Yang, Can Yuan, Jichun Wang, Mawsheng Chern, Junjie Yin, Weilan Chen, Bingtian Ma, Yuping Wang, Peng Qin, Shigui Li, Pamela Ronald, and **Xuwei Chen***. The durably resistant rice cultivar Digu activates defence gene expression before the full maturation of Magnaporthe oryzae appressorium. *Molecular Plant Pathology*, 2016, 17(3):354-68.
7. **Xuwei Chen*#**, Shimin Zuo#, Benjamin Schwessinger, Mawsheng Chern, Patrick E. Canlas, Deling Ruan, Xiaogang Zhou, Jing Wang, Arsalan Daudi, Christopher J. Petzold, Joshua L. Heazlewood and Pamela C. Ronald*. An XA21-Associated Kinase (OsSERK2) regulates immunity mediated by the XA21 and XA3 immune receptors. *Molecular Plant*, 2014 7(5):874-92. doi: 10.1093/mp/ssu003.
8. Jing Wang#, Hui Shi#, Lian Zhou, Chunfang Peng, Dingyou Liu, Xiaogang Zhou, Wenguan Wu, Junjie Yin, Hai Qin, Weiwei Ma, Wen Zhao, Min He, Weitao Li, Jichun Wang, Shigui Li, **Xuwei Chen***. OsBSK1-2, an orthologous of AtBSK1, Regulates Rice Immunity. *Frontier in Plant Science*, 2017, 8:908
9. Haitao Hu#, Jing Wang#, Chan Shi, Can Yuan, Chunfang Peng, Junjie Yin, Weitao Li, Min He, Jichun Wang, Bingtian Ma, Yuping Wang, Shigui Li, **Xuwei Chen***. A receptor like kinase gene with expressional responsiveness on Xanthomonas oryzae pv. oryzae is essential for Xa21-mediated disease resistance. *Rice*, 2015, 8(1):1-9.
10. Jing Wang#, Bangquan Ye#, Junjie Yin, Can Yuan, Xiaogang Zhou, Weitao Li, Min He, Jichun Wang, Weilan Chen, Peng Qin, Bingtian Ma, Yuping Wang, Shigui Li, **Xuwei Chen***. Characterization and fine mapping of a light-dependent leaf lesion mimic mutant 1 in rice. *Plant Physiology and Biochemistry*, 2015, 97: 44-51.
11. Weitao Li#, Junjie Yin#, Bangquan Ye, Chunfang Peng, Qinshu Cheng, Jing Wang, Can Yuan, Heng Yin, Zhixiong Chen, Min He, Yuping Wang, Weilan Chen, Jichun Wang, Bingtian Ma, Peng Qin, Shigui Li, and **Xuwei Chen***. Deletion of a DnaK protein gene causes seedling green-revertible albino by retarding chloroplast development in rice. *Chinese Science Bulletin*, 2015, 60(23):

2054-2058.

12. Xiaobo Zhu, Sihui Liang, Junjie Yin, Can Yuan, Jing Wang, Weitao Li, Min He, Jichun Wang, Weilan Chen, Bingtian Ma, Yuping Wang, Peng Qin, Shigui Li, **Xuwei Chen***. The DnaJ OsDjA7/8 is essential for chloroplast development in rice (*Oryza sativa*). *Gene*, 2015, 574(1):11-19.
13. Junjie Yin#, Xiaobo Zhu#, Can Yuan, Jing Wang, Weitao Li, Yuping Wang, Min He, Qinshu Cheng, Bangquan Ye, Weilan Chen, Qianyan Linghu, Jichun Wang, Bingtian Ma, Peng Qin, Shigui Li, **Xuwei Chen***. Characterization and Fine Mapping of a Novel Vegetative Senescence Lethal Mutant Locus in Rice. *J Genet Genomics*, 2015, 42:511-514.
14. Jing Wang, Baoyuan Qu, Shijuan Dou, Liyun Li, Dedong Yin, Zhiqian Pang, Zhuangzhi Zhou, Miaomiao Tian, Guozhen Liu, Qi Xie, Dingzhong Tang, **Xuwei Chen*** and Lihuang Zhu*. The E3 ligase OsPUB15 interacts with the receptorlike kinase PID2 and regulates plant cell death and innate immunity. *BMC Plant Biology*, 2015, 15:49 DOI 10.1186/s12870-015-0442-4.
15. Wei-Tao Li#, Wei-Lan Chen#, Chao Yang, Jing Wang, Lian Yang, Min He, Ji-Chun Wang, Peng Qin, Yu-Ping Wang, Bing-Tian Ma, Shi-Gui Li, **Xue-Wei Chen***, Identification and network construction of zinc finger protein (ZFP) genes involved in the rice-Magnaporthe oryzae interaction. *Plant Omics*, 2014, 7(6):540-548.
16. Shimin Zuo#, Xiaogang Zhou#, Mawsheng Chen, Shilu Zhang, Benjamin Schwessinger, Deling Ruan, Can Yuan, Jing Wang, **Xuwei Chen*** and Pamela C. Ronald*. OsSERK1 regulates rice development but not immunity to *Xanthomonas oryzae* pv. *oryzae* or *Magnaporthe oryzae*. *J Integr Plant Biol*, 2014, 56(12): 1179–1192.
17. **Xuwei Chen#**, Miguel E. Vega-Sánchez, Yves Verhertbruggen, Dawn Chiniquy, Patrick E. Canlas, Alexandra Fagerström, Lina Prak, Ulla Christensen, Ai Oikawa, Mawsheng Chen, Shimin Zuo, Fan Lin, Manfred Auer, William G.T. Willats, Laura Bartley, Jesper Harholt, Henrik V. Scheller, and Pamela C. Ronald*. Inactivation of OsIRX10 leads to decreased xylan content in ricestem cell walls and improved biomass saccharification. *Molecular Plant*, 2012, 6(1): doi: 10.1093/mp/sss135.
18. Jing Wang#, Guan Wen#, Chunfang Peng, Xiaogang Zhou, Weitao Li, Min He, Jichun Wang, Junjie Yin, Can Yuan, Weiwei Ma, Bintian Ma, Yuping Wang, Shigui Li, **Xuwei Chen***. The receptor-like cytoplasmic kinase OsRLCK102 regulates plant development and XA21-mediated immunity in rice. *Plant Molecular Biology Reporter*, 2015,34(3):628-637.
19. **Xuwei Chen#** and Pamela C. Ronald*. Innate immunity in rice. *Trends in Plant Science*, 2011, 16:451-459.
20. **Xuwei Chen#**, Mawsheng Chern, Patric E. Canlas, Deling Ruan, Caiying Jiang, Pamela C. Ronald. The rice XB24 ATPase promotes autophosphorylation of

XA21 and inhibits XA21-mediated immunity. *PNAS (Track II)*, 2010, 107: 8029-8034.

21. **Xuwei Chen**#, Mawsheng Chern, Patric E. Canlas, Deling Ruan, Caiying Jiang, Pamela C. Ronald A conserved threonine residue in the juxtamembrane domain of the XA21 pattern recognition receptor is critical for kinase autophosphorylation and XA21-mediated immunity. *Journal of Biological Chemistry*, 2010, 285: 10454-10463.
22. Junjun Shang#, Yong Tao#, **Xuwei Chen**#, Yan Zou, Cailin Lei, Jing Wang, Xiaobing Li, Xianfeng Zhao, Meijun Zhang, Zhike Lu, Jichen Xu, Zhukuan Cheng, Jianmin Wan, Lihuang Zhu. Identification of a new rice blast resistance gene, Pid3, by genome-wide comparison of paired NBS-LRR genes and their pseudogene alleles between the two sequenced rice genomes. *Genetics*, 2009,182: 1303-1311.
23. **Xuwei Chen**#, Junjun Shang, Cailin Lei, Jichen Xu, Shigui Li, Lihuang Zhu. Genetic and Molecular Analyses of Blast Resistance in a Universal Blast Resistant Variety, Digu. G.-L. Wang, B. Valent (eds.) *Advances in Genetics, Genomics and Control of Rice Blast Disease*, 2008, 149-159.
24. **Xuwei Chen**#, Junjun Shang#, Dexi Chen, Cailin Lei, Yan Zou, Wenxue Zhai, Guozhen Liu, Jichen Xu, Zhongzhuan Ling, Gang Cao, Bingtian Ma, Yuping Wang, Xianfeng Zhao, Shigui Li, Lihuang Zhu. A B-lectin receptor kinase gene conferring rice blast resistance. *The Plant Journal*, 2006, 46 (5), 794-804.
25. Jing Wang, Hong Yu, Guosheng Xiong, Zefu Lu, Yongqing Jiao, Xiangbing Meng, Guifu Liu, **Xuwei Chen**, Yonghong Wang, Jiayang Li. Tissue-specific Ubiquitination by IPA1 INTERACTING PROTEIN 1 Modulates IPA1 Protein Levels to Regulate Plant Architecture in Rice. *The Plant Cell*, 2017, **29(5)**: doi:10.1105/tpc.16.00879.
26. Chao Yang#, Wen Li, Jidong Cao, Fanwei Meng, Yongqi Yu, Junkai Huang, Lan Jiang, Muxing Liu, Zhengguang Zhang, **Xuwei Chen**, Koji Miyamoto, Hisakazu Yamane, Jinsong Zhang, Shouyi Chen, Jun Liu*. Activation of ethylene signaling pathways enhances disease resistance by regulating ROS and phytoalexin production in rice. *The Plant Journal*, 2016, 89(2):338-353.
27. Bin Tu, Li Hu, Weilan Chen, Tao Li, Binhua Hu, Ling Zheng, Zheng Lv, Shuju You, Yuping Wang, Bingtian Ma, **Xuwei Chen**, Peng Qin, Shigui Li. Disruption of OsEXO70A1 Causes Irregular Vascular Bundles and Perturbs Mineral Nutrient Assimilation in Rice. *Scientific Reports*, 2015, 22;5:18609. doi: 10.1038/srep18609.
28. Yuping Wang, Weilan Che, Peng Qin, Yanyan Huang, Bingtian Ma, Xinhao Ouyang, **Xuwei Chen**, Shigui Li*. Characterization and fine mapping of Glabrous rice 2 in rice. *J Genet Genomics*, 2013, 40(11): 579-82.
29. Mawsheng Chern, Wei Bai, **Xuwei Chen**, Pamela Ronald*. Reduced expression

of glycolate oxidase leads to enhanced disease resistance in rice. *Peer Journal*, 2013 1:e28. doi: 10.7717/peerj.28.

30. Miguel E. Vega-Sánchez, Yves Verherbruggen, Ulla Christensen, **Xuwei Chen**, Vaishali Sharma, Patanjali Varanasi, Stephen A. Jobling, Mark Talbot, Rosemary G. White, Michael Joo, Seema Singh, Manfred Auer, Henrik V. Scheller and Pamela C. Ronald. Loss of Cellulose Synthase-Like F6 Function Affects Mixed-Linkage Glucan Deposition, Cell Wall Mechanical Properties, and Defense Responses in Vegetative Tissues of Rice. *Plant Physiology*. 2012, 159:56-69.
31. Chang-Jin Park, Ying Peng, **Xuwei Chen**, Christopher Dardick, DeLing Ruan, Rebecca Bart, Patrick E. Canlas, Pamela C. Ronald. Rice XB15, a Protein Phosphatase 2C, Negatively Regulates Cell Death and XA21-Mediated Innate Immunity. *PLoS Biology*, 2008, 6(9) e231.
32. Chang-Jin Park, Sang-Wook Han, **Xuwei Chen**, and Pamela C. Ronald. Elucidation of XA21-mediated innate immunity. *Cellular Microbiology*, 2010, 12(8):1017-25.
33. CHEN De-xi, **CHEN Xue-wei**, MA Bing-tian, WANG Yu-ping, ZHU Li-huang, LI Shi-gui. Genetic Transformation of Rice with Pi-d2 Gene Enhances Resistance to Rice Blast Fungus Magnaporthe oryzae. *Rice Science*, 2010, 17(3):179-184.
34. Ying Peng, Laura E. Bartley, **Xuwei Chen**, Christopher Dardick, Mawsheng Chern, Randy Ruan, Patrick E. Canlas, Pamela C. Ronald. OsWRKY62 is a Negative Regulator of Basal and Xa21-Mediated Defense against *Xanthomonas oryzae* pv. *oryzae* in Rice. *Molecular Plant*, 2008, 1: 446-458.
35. Lei Li, Xiangfeng Wang, Rajkumar Sasidharan, Viktor Stolc, Wei Deng, Hang He, Jan Korbel, **Xuwei Chen**, Waraporn Tongprasit, Pamela Ronald, Runsheng Chen, Mark Gerstein, Xing Wang Deng. Global Identification and Characterization of Transcriptionally Active Regions in the Rice Genome. *PLoS ONE*, 2007, 2(3): e294.
36. Young-Su Seo, Mawsheng Chern, Laura E. Bartley, Muho Han, Ki-Hong Jung, Insuk Lee, Harkamal Walia, Xia Xu, Peijian Cao, Wei Bai, Rajeshwari Ramanan, Fawn Amonpant, Loganathan Arul, Patrick E. Canlas, Randy Ruan, Chang-Jin Park, **Xuwei Chen**, Sohyun Hwang, Jong-Seong Jeon, and Pamela C. Ronald. Towards Establishment of a Rice Stress Response Interactome. *PLoS Genetics*, 2011, 7(4): e1002020.
37. **X.W. Chen**, S.G. Li, W.X. Zhai, J.C. Xu, Z.Z. Ling, W.M. Wang, X.B. Li, Y.P. Wang, G. Cao, J.J. Shang, Y.Q. Ma, K.D. Zhou, L.H. Zhu. Identification of Two Blast Resistance Genes in Rice Digu. *Journal of Phytopathology*, 2004, 152 : 77-85.
38. Zheng X, **Chen X**, Zhang X, Lin Z, Shang J, Xu J, Zhai W, Zhu L. Isolation and identification of a gene in response to rice blast disease in rice. *Plant Molecular*

Biology, 2004, 54: 99-109.

39. Wenxue Zhai, Caiyan Chen, Xuefeng Zhu, **Xuwei Chen**, Dechun Zhang, Xiaobing Li, Lihuang Zhu. Analysis of T-DNA- Xa21 loci and bacterial blight resistance effects of the transgene Xa21 in transgenic rice. *Theoretic Applied Genetics*, 2004, 109: 534-542.
40. ZHONG Yiming, JIANG Guanghuai, **CHEN Xuwei**, XIA Zhihui, LI Xiaobing, ZHU Lihuang, ZHAI Wenxue. Identification and gene prediction of a 24 kb region containing xa5, a recessive bacterial blight resistance gene in rice (*Oryza sativa* L.) *Chinese Science Bulletin*, 2003, 48(1), 2725-2729.
41. Jun Yu., ..., **Xuwei Chen**.,, and Huanming Yang. A draft sequence of the rice genome (*Oryza sativa* L. ssp. indica). *Science*, 2002, 296, 79-92.
42. **CHEN Xuwei**#, Li Shigui, WANG Wenming, Li Hanyun, ZHOU Kaida, ZHU Lihuang. Molecular tagging of a genic male-sterile gene MS-P in rice. *Chinese Science Bulletin*, 2001, 46(1), 66-69.
43. YU Jun, HU Songnian, -, **CHEN Xuwei**,-, YANG Huanming. A draft sequence of the rice (*Oryza sativa* ssp. indica) genome. *Chinese Science Bulletin*, 2001, 46:1937-1942.
44. W. Wang, W. Zhai, M. Luo, G. Jiang, X. Chen, X. Li, R. A. Wing, L. Zhu. Chromosome landing at the bacterial blight resistance gene Xa4 locus using a deep coverage rice BAC library. *Molecular Genetics and Genomics*, 2001, 265,118-125.
45. W.M. Wang, W.X. Zhai, G.H. Jiang, **X.W. Chen**, X.B. Li, L. H. Zhu. Construction of a BAC contig containing Xa4 locus on Chromosome 11, *Rice Genetics Newsletter*, 2000, 17,74-76.
46. Wang Wenmin, ZHOU Yongli, JIANG Guanhuai, MA Bojun, **CHEN Xuwei**, ZHANG Qi, ZHU Lihuang, ZHAI Wenxue. Fine mapping of the rice bacterial blight resistance gene Xa-4 and its co-segregation marker. *Chinese Science Bulletin*, 2000, 45(19),1779-1782.
47. 成钦淑, 叶邦全, 袁灿, 李伟滔, 尹俊杰, 王静, 贺闽, 汪吉春, 王玉平, 李仕贵, **陈学伟*** 水稻白条纹叶突变体 st11 的遗传分析与基因定位. *中国水稻科学*, 2015, 29 (1): 14-21.
48. 赵文, 王静, 李伟滔, 王静, 李小兵, 朱立煌*, **陈学伟*** 应用 GST Pull-down 技术筛选水稻抗稻瘟病蛋白 PID3 互作蛋白的研究. *植物病理学报*, 2015, (5):476-485.
49. 史婵, 陈薇兰, 贺闽, 王静, **陈学伟**, 李伟滔*: 三份重要水稻资源的稻瘟病抗性鉴定及不同评价指标间的相关性分析, *植物保护学报*, 2014, 41(4):390-395.

50. 陈学伟, 李仕贵, 王文明, 黎汉云, 周开达, 朱立煌*. 水稻萍乡显性核不育基因的定位, *科学通报*, 2000,45(15): 1644-1648.
51. 陈德西, 陈学伟, 雷财林, 马炳田, 王玉平, 李仕贵. 转 Pi-d2 基因水稻对稻瘟病的抗性分析, *中国水稻科学*, 2010, 24(1): 31-35.
52. 樊颖伦, 陈学伟, 王春连, 朱立煌, 章琦, 赵开军. 水稻抗白叶枯病基因 Xa23 的 RFLP 标记定位及其 STS 标记的转化. *作物学报*, 2006, 32(06): 931-935.
53. 陈学伟, 李仕贵, 马玉清, 黎汉云, 周开达, 朱立煌. 水稻抗稻瘟病基因 Pi-d(t)1、Pi-b、Pi-ta2 的聚合及分子标记选择. *生物工程学报*, 2004, 20 (5): 708-714.
54. 朱雪峰, 陈学伟, 李晓兵, 钱前, 黄大年, 朱立煌, 翟文学. 转 Xa21 基因水稻中 T-DNA 整合的遗传定位. *遗传学报*, 2002, 29(10),880-886.
55. 王文明, 周永力, 江光怀, 马伯军, 陈学伟, 章琦, 朱立煌, 翟文学. 水稻抗白叶枯病基因 Xa-4 的精细定位及其共分离分子标记. *科学通报*, 2000,45(19),1779-1782.